

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF THE CLAIMS:

1. (Currently Amended) A method for producing a conductive layered coating on an insulating substrate, comprising:

equipping, in selected regions, at least one surface of an electrically insulating substrate with a coating of an electrically highly conductive first metal, the coating being structured as conductor paths;

structuring the first metal to cover locally the at least one surface of the substrate;

cleaning the at least one coated surface;

seeding the coating with seeds of a second metal;

depositing a first layer including an alloy of the second metal onto the coating seeded with the seeds of the second metal;

depositing a second continuous layer including the alloy of the second metal onto the coating seeded with the seeds of the second metal, the second continuous layer covering the first layer;

firing the substrate deposited with the first and second layers of the second metal to form the conductive layered coating, the firing being performed so that the first metal is diffused with the second metal; and

contacting a gold bonding wire to the conductive layered coating, wherein the substrate includes a low-temperature co-fired ceramic (LTCC), the first metal includes silver, and the second metal includes palladium.

2. (Canceled).

3. (Canceled).

4. (Previously Presented) The method as recited in Claim 1, wherein in the depositing of the second layer of the second metal, palladium is deposited at a ratio of from 0.1 to 50% percent by weight of the alloy.

5. (Previously Presented) The method as recited in Claim 1, wherein in the depositing of palladium, the palladium is deposited so that a concentration of greater than 20% percent by weight palladium in the alloy results.

6. (Previously Presented) The method as recited in Claim 1, wherein the seeding and the depositing are performed according to an electroless procedure.

7. (Previously Presented) The method as recited in Claim 1, wherein the firing is performed at a temperature between 830 and 870°C.

8. (Previously Presented) The method as recited in Claim 1, wherein the firing is performed at a temperature of 850°C.

9-10. (Canceled).

11. (Previously Presented) A method for producing a conductive layered coating on an electrically insulating substrate, comprising:

equipping, in selected regions, at least one surface of the electrically insulating substrate with a coating of a first metal structured as a conductor path;

structuring the first metal to cover locally the at least one surface of the substrate;

cleaning the at least one coated surface;

seeding the at least one coated surface with seeds of a second metal;

depositing a first layer including an alloy of the second metal onto the at least one seeded coated surface;

depositing a second continuous layer including an alloy of the second metal onto the at least one seeded coated surface, the second continuous layer covering the first layer; and

firing the substrate deposited with the first and second layers to form the conductive layered coating, the firing being performed at a temperature below the melting point of the first metal, the second metal and the alloy.

12. (Previously Presented) The method of Claim 11, wherein the substrate includes an LTCC.

13. (Previously Presented) The method of Claim 12, wherein the first metal includes silver and the second metal includes palladium.

14. (Previously Presented) The method of Claim 13, further comprising:
contacting a gold bonding wire to the conductive coating.

15. (Previously Presented) The method of Claim 13, wherein the low-temperature co-fired ceramic (LTCC) is a glass-ceramic mixture that, together with metallization pastes made from silver (Ag), silver palladium (AgPd) or gold (Au), is fired at a temperature that is below the melting point of the metallization pastes.

16. (Previously Presented) The method of Claim 13, wherein a nickel bath is not used and a gold bath is not used, and wherein the low-temperature co-fired ceramic (LTCC) is a glass-ceramic mixture that, together with metallization pastes made from silver (Ag), silver palladium (AgPd) or gold (Au), is fired at a temperature that is below the melting point of the metallization pastes.

17. (Previously Presented) The method of Claim 16, wherein:

in the depositing of the layer of the second metal, palladium is deposited at a ratio of from 0.1 to 50% percent by weight of the alloy,

in the depositing of palladium, the palladium is deposited in such a way that a

concentration of greater than 20% percent by weight palladium in the alloy results,
and

the firing is performed at a temperature between 830 and 870°C.

18. (Previously Presented) The method of Claim 17, wherein the seeding and the depositing are performed according to an electroless procedure, and the firing is performed at a temperature of 850°C.

19. (Previously Presented) The method of Claim 1, wherein the low-temperature co-fired ceramic (LTCC) is a glass-ceramic mixture that, together with metallization pastes made from silver (Ag), silver palladium (AgPd) or gold (Au), is fired at a temperature that is below the melting point of the metallization pastes.

20. (Previously Presented) The method of Claim 1, wherein a nickel bath is not used and a gold bath is not used, and wherein the low-temperature co-fired ceramic (LTCC) is a glass-ceramic mixture that, together with metallization pastes made from silver (Ag), silver-palladium (AgPd) or gold (Au), is fired at a temperature that is below the melting point of the metallization pastes.

21. (Previously Presented) The method of Claim 20, wherein:

in the depositing of the layer of the second metal, palladium is deposited at a ratio of from 0.1 to 50% percent by weight of the alloy,

in the depositing of palladium, the palladium is deposited in such a way that a concentration of greater than 20% percent by weight palladium in the alloy results,
and

the firing is performed at a temperature between 830 and 870°C.

22. (Previously Presented) The method of Claim 21, wherein the seeding and the depositing are performed according to an electroless procedure, and the firing is performed at a temperature of 850°C.

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23. (Previously Presented) The method of claim 1, wherein the palladium process is performed on circuit traces formed on a surface of the substrate surface.

24. (Previously Presented) The method of claim 11, wherein the palladium process is performed on circuit traces formed on a surface of the substrate surface.